

REMARKS

This Amendment is submitted in response to the Office Action dated July 2, 2007. In the Office Action, the Patent Office objected to the drawings under 37 CFR §1.83(a). Further, the Patent Office rejected Claims 7, 14-20 and 40 under 35 U.S.C. §112, first paragraph, for failing to comply with the enablement requirement. Still further, the Patent Office provisionally rejected Claims 1-87 on the ground of nonstatutory obviousness-type double patenting as being unpatentable over Claims 1-110 of co-pending U.S. Patent Application Serial No. 10/447,099; Claims 1-114 of co-pending U.S. Patent Application Serial No. 10/449,292; Claims 1-139 of co-pending U.S. Patent Application Serial No. 10/449,312; Claims 1-82 of co-pending U.S. Patent Application Serial No. 10/760,604; and Claims 1-51 of co-pending U.S. Patent Application Serial No. 11/257,330.

In addition, the Patent Office rejected Claims 1-6, 8-13, 21-34, 44-51, 58-66 and 68-87 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,645,420 to *Bergersen* (hereinafter "the '420 patent"); rejected Claims 1-6, 12, 34, 44-51, 68-72 and 85-87 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent in view of *Kesling* (U.S. Patent No. 3,178,820) and U.S. Patent No. 4,139,944 to *Bergersen* (hereinafter "the '944 patent"); rejected Claims 14-17, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over *Andrews* (U.S. Patent No. 4,591,341) in view of

Kesling and the '944 patent; rejected Claims 6, 42 and 66 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent in view of *Watson* (U.S. Patent No. 5,328,362); rejected Claims 7, 18, 40 and 67 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent in view of *Andrews*; and rejected Claims 21-39, 41-43 and 52-57 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent.

Regarding the provisional rejection based on obviousness-type double patenting, Applicant submits that Claims 1-87 distinctly define the present invention in view of the co-pending applications. The Patent Office admits the conflicting claims are not identical but contends Applicant merely re-arranges the order of the claimed elements and uses different wording. Applicant asserts that the subject matter of the pending claims of U.S. Serial Nos. 10/447,099; 10/449,292; 10/449,312; 10/760,604; and 11/257,330 is distinct from the subject matter of the pending claims of the present application. The co-pending applications each fail to disclose at least one element required by the current claims of this application. Therefore, Applicant asserts that Claims 1-87 should not have been rejected for obviousness-type double patenting rejections in view of co-pending claims of U.S. Serial Nos. 10/447,099; 10/449,292; 10/449,312; 10/760,604; and 11/257,330. If the Examiner maintains this rejection, Applicant will file a Terminal Disclaimer upon determination that the claims

are otherwise allowable.

In the Office Action, the Patent Office objected to the drawings under 37 CFR §1.83(a). More specifically, the Patent Office alleges that the embedded wires and suction cups must be shown in the drawings.

The suction cups are indicated by reference numerals 260 and 262 in FIGS. 25A and 25B. The embedded wire is indicated by reference numeral 320 in FIGS. 29, 30A and 32. Applicant asserts that the objection to the drawings under 37 CFR §1.83(a) should be withdrawn. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 1-6, 8-13, 21-34, 44-51, 58-66 and 68-87 under 35 U.S.C. §102(b) as being anticipated by the '420 patent. More specifically, the Patent Office alleges that *Bergersen* discloses a dental appliance having a generally U-shaped base, a flat occlusal surface, a first wall, a second wall and a slot whose width increases from the front to the rear.

Independent Claim 1, as amended, requires a wire embedded within the base wherein the wire extends vertically from the base adjacent to the first side of the tooth and does not extend from the base adjacent to the second side of the tooth. Amended Claim 1 further requires that the width of the slot increases from a first portion of the slot to a second portion of the slot wherein the first portion of the slot is shaped to contact a front of the

mouth wherein the second portion of the slot is shaped to extend rearward in the mouth.

Independent Claim 8, as amended, requires that the wedges contact an interproximal area of the canine tooth and do not contact any area of the canine tooth other than the interproximal area. Claim 8 requires the step of moving the canine tooth with the wedge when the base is worn by the user.

Independent Claim 21, as amended, requires contacting the teeth of the user with the flat occlusal surface of the first device and contacting the teeth of the user with the flat occlusal surface of the second device wherein the second device is sized larger than the first device.

Independent Claim 27, as amended, requires contacting the teeth of the user with the flat occlusal surface of the first device and contacting the teeth of the user with the flat occlusal surface of the second device wherein the first device is constructed from a first material and the second device is constructed from a second material wherein the first material is softer than the second material.

Independent Claim 44, as amended, requires a wire embedded within the base wherein the wire is shaped to contact only a labial side of one of the teeth.

Independent Claim 58, as amended, requires a wire embedded within the base wherein the wire extends vertically from the

exterior surface of the generally U-shaped base toward a tooth when the base is worn by the user wherein the wire is shaped to contact only one side of the tooth.

Independent Claim 63, as amended, requires that the slot has a first portion, a second portion, a third portion and a fourth portion wherein the width continuously increases from the first portion to the fourth portion.

Independent Claim 68, as amended, requires contacting the canine type tooth with a wire embedded in the base wherein the wire extends from the base and contacts the canine type tooth only on one side of the canine type tooth.

Independent Claim 74, as amended, requires the step of contacting an interproximal area of one of the teeth with the wedges and further wherein the wedge does not contact any area of the tooth other than the interproximal area wherein the wedge moves the tooth.

Independent Claim 79, as amended, requires a wire embedded in the base wherein the wire extends from the socket and further wherein the wire extends from only one side of the socket.

Independent Claim 85, as amended, requires a wire embedded in the base wherein the wire extends from the outer surface of one of the sockets wherein the wire contacts the first tooth and further wherein the wire extends from only one side of the socket.

The '420 patent merely discloses superior and inferior tooth

receiving troughs 22A, 24A which have a plurality of tooth sockets 22Aa, 22Ab, 22Ac, 22Ad. In addition, the '420 patent merely discloses an upper lingual flange 26 having a plurality of slight recesses 40a, 40b, 40c, 40d, 40e. The Patent Office identified element 22 in '420 patent as the claimed wedge; however, element 22 does not meet the limitations of the wedge because element 22 does not extend from the socket or slot to contact only an interproximal area of teeth. As admitted in the Office Action, the alleged wedge is located "all the way around" the tooth, "including its sides". (See Office Action, p. 5).

Further, the Patent Office identified element 104 in the '420 patent as the claimed embedded wire; however, the element 104 does not meet the limitations of the embedded wire because the element 104 does not extend vertically from the base. In contrast to the claimed invention, the wire of the '420 patent is completely inside the appliance and helps the appliance maintain its shape. (See the '420 patent, FIG. 14 and Col. 10, lines 4-10). The Patent Office states that "the inherent resiliency of the embedded wire would serve to help clasp the appliance to the patient's teeth" (Office Action, p. 5), but the claims require the structural feature of the wire extending vertically from the base.

Still further, the Office Action does not address the requirement of Claim 1 that the width of the slot increases from a first portion of the slot to a second portion of the slot wherein

the first portion of the slot is shaped to contact a front of the mouth wherein the second portion of the slot is shaped to extend rearward in the mouth. The '420 patent discloses troughs with sockets, not a slot that has an increased width rearward in the slot.

Moreover, the Patent Office alleged that the requirement of consecutively worn appliances in Claim 21 is a matter of intended use and fails to impose structural distinctions. Claim 21 is amended to claim a method for applying consecutively worn appliances to teeth of a user; thus, this claim element should be given patentable weight.

The '420 patent fails to disclose a wire embedded within the base wherein the wire extends vertically from the base adjacent to the first side of the tooth and does not extend from the base adjacent to the second side of the tooth as required by amended Claim 1. Further, the '420 patent fails to disclose that the width of the slot increases from a first portion of the slot to a second portion of the slot wherein the first portion of the slot is shaped to contact a front of the mouth wherein the second portion of the slot is shaped to extend rearward in the mouth as required by amended Claim 1.

The '420 patent fails to disclose that the wedges contact an interproximal area of the canine tooth and do not contact any area of the canine tooth other than the interproximal area as required

by amended Claim 8. Further, the '420 patent fails to disclose moving the canine tooth with the wedge when the base is worn by the user as required by amended Claim 8.

The '420 patent fails to disclose contacting the teeth of the user with the flat occlusal surface of the first device and contacting the teeth of the user with the flat occlusal surface of the second device wherein the second device is sized larger than the first device as required by amended Claim 21.

The '420 patent fails to disclose contacting the teeth of the user with the flat occlusal surface of the first device and contacting the teeth of the user with the flat occlusal surface of the second device wherein the first device is constructed from a first material and the second device is constructed from a second material wherein the first material is softer than the second material as required by amended Claim 27.

The '420 patent fails to disclose a wire embedded within the base wherein the wire is shaped to contact only a labial side of one of the teeth as required by amended Claim 44.

The '420 patent fails to disclose a wire embedded within the base wherein the wire extends vertically from the exterior surface of the generally U-shaped base toward a tooth when the base is worn by the user wherein the wire is shaped to contact only one side of the tooth as required by amended Claim 58.

The '420 patent fails to disclose that the slot has a first

portion, a second portion, a third portion and a fourth portion wherein the width continuously increases from the first portion to the fourth portion as required by amended Claim 63.

The '420 patent fails to disclose contacting the canine type tooth with a wire embedded in the base wherein the wire extends from the base and contacts the canine type tooth only on one side of the canine type tooth as required by amended Claim 68.

The '420 patent fails to disclose the step of contacting an interproximal area of one of the teeth with the wedges and further wherein the wedge does not contact any area of the tooth other than the interproximal area wherein the wedge moves the tooth as required by amended Claim 74.

The '420 patent fails to disclose a wire embedded in the base wherein the wire extends from the socket and further wherein the wire extends from only one side of the socket as required by amended Claim 79.

The '420 patent fails to disclose a wire embedded in the base wherein the wire extends from the outer surface of one of the sockets wherein the wire contacts the first tooth and further wherein the wire extends from only one side of the socket as required by amended Claim 85.

Therefore, the '420 patent does not disclose the elements required by Claims 1, 8, 21, 27, 44, 58, 63, 68, 74, 79 and 85, as amended. Under 35 U.S.C. §102(b), anticipation requires that a

single reference discloses each and every element of Applicant's claimed invention. *Akzo N.V. v. U.S. International Trade Commission*, 808 F.2d 1471, 1479, 1 USPQ 2d. 1241, 1245 (Fed. Cir. 1986). Moreover, anticipation is not shown even if the differences between the claims and the reference are "insubstantial", and one skilled in the art could supply the missing elements. *Structure Rubber Products Co. v. Park Rubber Co.*, 749 F.2d. 707, 716, 223 USPQ 1264, 1270 (Fed. Cir. 1984).

Since the '420 patent fails to disclose the elements specifically defined in amended independent Claims 1, 8, 21, 27, 44, 58, 63, 68, 74, 79 and 85, Applicant asserts that the rejection of Claims 1-6, 8-13, 21-34, 44-51, 58-66 and 68-87 under 35 U.S.C. §102(b) has been overcome and should be withdrawn. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 1-6, 12, 34, 44-51, 68-72 and 85-87 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent in view of *Kesling* and the '944 patent. More specifically, the Patent Office states that *Kesling* discloses embedded wire clasps to fit and secure the appliance within the mouth of the patient. (See Office Action, p. 6)

Kesling merely teaches an orthodontic appliance for use in the final stages of orthodontic treatment to position and retain teeth. The appliance has an arch-shaped body of resilient material having upper and lower archways for receiving the upper and lower arches

of a patient. The appliance is premolded in several sizes, and the seating springs are custom fitted to the patient's arches in a short period of time by the orthodontist. The appliance has a wire which clasps teeth to hold the appliance in the mouth. As shown in FIGS. 7 and 8, the wire resides within the appliance and does not extend vertically from the appliance. Further, the wire contacts both a labial side and a lingual side of a tooth. *Kesling* does not remedy the deficiencies of the '420 patent with respect to the claimed invention.

The '944 patent teaches an orthodontic positioner for preventing or correcting overbite and/or overjet at a mixed dentition stage wherein a patient has permanent incisors and lost, unreplaced canine and deciduous molar teeth. Further, *Bergersen* teaches an orthodontic positioner which concurrently depresses the incisors and guides eruption of the permanent canine and bicuspid teeth. The positioner has troughs and sockets for receiving teeth. The '944 patent does not remedy the deficiencies of the '420 patent with respect to the claimed invention.

The '420 patent, *Kesling* and the '944 patent, taken singly or in combination, fail to teach or suggest a wire embedded within the base wherein the wire extends vertically from the base adjacent to the first side of the tooth and does not extend from the base adjacent to the second side of the tooth as required by amended Claim 1. Further, the '420 patent, *Kesling* and the '944 patent,

taken singly or in combination, fail to teach or suggest that the width of the slot increases from a first portion of the slot to a second portion of the slot wherein the first portion of the slot is shaped to contact a front of the mouth wherein the second portion of the slot is shaped to extend rearward in the mouth as required by amended Claim 1.

The '420 patent, *Kesling* and the '944 patent, taken singly or in combination, fail to teach or suggest that the wedges contact an interproximal area of the canine tooth and do not contact any area of the canine tooth other than the interproximal area as required by amended Claim 8 from which Claim 12 depends. Further, nowhere do the '420 patent, *Kesling* or the '944 patent, taken singly or in combination, teach or suggest moving the canine tooth with the wedge when the base is worn by the user as required by amended Claim 8 from which Claim 12 depends.

The '420 patent, *Kesling* and the '944 patent, taken singly or in combination, fail to teach or suggest contacting the teeth of the user with the flat occlusal surface of the first device and contacting the teeth of the user with the flat occlusal surface of the second device wherein the first device is constructed from a first material and the second device is constructed from a second material wherein the first material is softer than the second material as required by amended Claim 27 from which Claim 34 depends.

The '420 patent, *Kesling* and the '944 patent, taken singly or in combination, fail to teach or suggest a wire embedded within the base wherein the wire is shaped to contact only a labial side of one of the teeth as required by amended Claim 44.

The '420 patent, *Kesling* and the '944 patent, taken singly or in combination, fail to teach or suggest contacting the canine type tooth with a wire embedded in the base wherein the wire extends from the base and contacts the canine type tooth only on one side of the canine type tooth as required by amended Claim 68.

The '420 patent, *Kesling* and the '944 patent, taken singly or in combination, fail to teach or suggest a wire embedded in the base wherein the wire extends from the outer surface of one of the sockets wherein the wire contacts the first tooth and further wherein the wire extends from only one side of the socket as required by amended Claim 85.

Moreover, a person of ordinary skill in the art would never have been motivated to combine the '420 patent, *Kesling* and the '944 patent in the manner suggested by the Patent Office in formulating the rejection under 35 U.S.C. §103(a). It is submitted that the question under §103 is whether the totality of the art would collectively suggest the claimed invention to one of ordinary skill in this art. *In re Simon*, 461 F.2d 1387, 174 USPQ 114 (CCPA 1972).

That elements, even distinguishing elements, are disclosed in

the art is alone insufficient. It is common to find elements somewhere in the art. Moreover, most if not all elements perform their ordained and expected functions. The test is whether the invention as a whole, in light of the teachings of the references in their entireties, would have been obvious to one of ordinary skill in the art at the time the invention was made. *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983). It is insufficient that the art disclosed components of Applicant's invention. *Interconnect Planning Corp. v. Feil*, 774 F.2d 1132, 1143, 227 USPQ 543, 551 (Fed. Cir. 1988).

With the analysis of the deficiencies of the '420 patent, *Kesling* and the '944 patent as enumerated above, no reason or suggestion in the evidence of record exists why one of ordinary skill in the art would have been led to combine the '420 patent, *Kesling* and the '944 patent to produce the claimed invention. Therefore, *prima facie* obviousness has not been established by the Patent Office as required under 35 U.S.C. §103.

Even assuming that one having ordinary skill in the art could somehow have combined the references applied by the Patent Office, the references still lack the novel features and the novel steps and structural elements positively recited in independent Claims 1, 8, 27, 44, 68 and 85. Accordingly, Applicant asserts that the rejection of Claims 1-6, 12, 34, 44-51, 68-72 and 85-87 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice

to that effect is requested.

In the Office Action, the Patent Office rejected Claims 14-17, 19 and 20 under 35 U.S.C. §103(a) as being unpatentable over *Andrews* in view of *Kesling* and the '944 patent. More specifically, the Patent Office alleges that *Andrews* teaches suction cups positioned in an orthodontic appliance.

Claim 14, as amended, requires applying pressure to one side of the first tooth with a wire embedded within the base wherein the wire extends vertically from the base and contacts the first tooth only on the one side of the first tooth.

Andrews merely teaches an orthodontic positioner with suction devices attached to interior walls of the positioner. *Andrews*, *Kesling* and the '944 patent, taken singly or in combination, fail to teach or suggest applying pressure to one side of the first tooth with a wire embedded within the base wherein the wire extends vertically from the base and contacts the first tooth only on the one side of the first tooth as required by amended Claim 14.

Moreover, a person of ordinary skill in the art would never have been motivated to combine *Andrews*, *Kesling* and the '944 patent in the manner suggested by the Patent Office in formulating the rejection under 35 U.S.C. §103(a). As noted above, it is insufficient that the art disclosed components of Applicant's invention. *Interconnect*, 774 F.2d at 1143.

Even assuming that one having ordinary skill in the art could

somehow have combined the references applied by the Patent Office, the references still lack the novel steps positively recited in independent Claim 14. Accordingly, the rejection of Claims 14-17, 19 and 20 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 6, 42 and 66 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent in view of *Watson et al.* More specifically, the Patent Office alleges that *Watson et al.* teach the construction of dental appliances of a first relatively rigid material and a second relatively soft resilient material.

On the contrary, *Watson et al.* merely teach a unitary plural-material, interocclusal dental appliance for use in connection with orthodontic/orthopedic treatment of the teeth and jaws of a patient's mouth. The appliance has a first region made from a first material that provides a relatively hard expanse with first and second surfaces and with the second surface contacting the teeth. A second region is joined to the first region and is made from a second material that provides a relatively soft, persistently resilient enclosure.

Claim 6, as amended, requires that the second portion of the slot is constructed from the first material and the first portion of the slot is constructed from the second material.

Claim 42, as amended, requires a portion of the base that

contacts the first tooth is constructed from the first material and a portion of the slot that does not contact the first tooth is constructed from the second material.

Claim 66, as amended, requires that a first section of the slot is constructed from the first material and a second section of the slot is constructed from the second material wherein the first section contacts different teeth than the second section.

Contrary to Applicant's claimed invention, *Watson et al.* fail to teach or to suggest use of the different materials in sections that contact different teeth. *Watson et al.* merely teach use of different materials within the same socket, as different layers of the appliance. (See *Watson et al.*, FIG. 2A, elements 14 and 16). In addition, *Watson et al.* fail to teach or suggest elements of the present invention which are not taught by the '420 patent, as required by amended independent Claims 1, 35 and 63 from which Claims 6, 42 and 66 depend, respectively. Claim 1 requires a wire embedded within the base wherein the wire extends vertically from the base adjacent to the first side of the tooth and does not extend from the base adjacent to the second side of the tooth; Claim 35 requires a liquid within the generally U-shaped base wherein the liquid is released from the generally U-shaped base; and Claim 63 requires that the slot has a first portion, a second portion, a third portion and a fourth portion wherein the width continuously increases from the first portion to the fourth

portion.

Moreover, a person of ordinary skill in the art would never have been motivated to combine the '420 patent with *Watson et al.* in the manner suggested by the Patent Office in formulating the rejection under 35 U.S.C. §103(a). As noted above, it is insufficient that the art disclosed components of Applicant's invention. *Interconnect*, 774 F.2d at 1143.

Even assuming that one having ordinary skill in the art could somehow have combined the references applied by the Patent Office, the references still lack the novel features and the novel steps positively recited in Claims 6, 42 and 66. Accordingly, Applicant asserts that the rejection of Claims 6, 42 and 66 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice to that effect is requested.

In the Office Action, the Patent Office rejected Claims 7, 18, 40 and 67 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent in view of *Andrews*. More specifically, the Patent Office alleges that *Andrews* teaches the use of suction cups positioned in an orthodontic appliance.

Neither the '420 patent nor *Andrews*, taken singly or in combination, teaches or suggests a wire embedded within the base wherein the wire extends vertically from the base adjacent to the first side of the tooth and does not extend from the base adjacent to the second side of the tooth as required by amended Claim 1.

Further, neither the '420 patent nor *Andrews*, taken singly or in combination, teaches or suggests applying pressure to one side of the first tooth with a wire embedded within the base wherein the wire extends vertically from the base and contacts the first tooth only on the one side of the first tooth as required by amended Claim 14. Still further, neither the '420 patent nor *Andrews*, taken singly or in combination, teaches or suggests a liquid within the generally U-shaped base wherein the liquid is released from the generally U-shaped base as required by amended Claim 35. Moreover, neither the '420 patent nor *Andrews*, taken singly or in combination, teaches or suggests continuously increasing the width of the slot from the first portion to the fourth portion as required by amended Claim 63.

Andrews fails to teach or to suggest the elements of the present invention which are not taught by the '420 patent, as required by amended independent Claims 1, 14, 35 and 63 from which Claims 7, 18, 40 and 67, respectively, depend. Moreover, a person of ordinary skill in the art would never have been motivated to combine the '420 patent with *Andrews* in the manner suggested by the Patent Office in formulating the rejection under 35 U.S.C. §103(a). As noted above, it is insufficient that the art disclosed components of Applicant's invention. *Interconnect*, 774 F.2d at 1143.

Even assuming that one having ordinary skill in the art could

somehow have combined the references applied by the Patent Office, the references still lack the novel features and the novel steps positively recited in Claims 7, 18, 40 and 67. Accordingly, the rejection of Claims 7, 18, 40 and 67 under 35 U.S.C. §103(a) has been overcome and should be withdrawn. Notice to that effect is requested.

With respect to the rejection of Claims 21-39, 41-43 and 52-57 under 35 U.S.C. §103(a) as being unpatentable over the '420 patent, the Patent Office alleges that merely providing two different sized mouthpieces would have been obvious to one of ordinary skill in the art, and positioning the wire at the surface of the mouthpiece to better position teeth would be obvious as well.

The '420 patent fails to teach or suggest a first portion of the first device is constructed from a first material and a second portion of the first device is constructed from a second material softer than the first material as required by amended Claim 21. Further, *Bergersen* fails to teach or suggest that the first portion of the first device contacts a first set of teeth and the second portion of the first device contacts a second set of teeth wherein the first set of teeth and the second set of teeth are different sets of teeth as required by Claim 21.

The '420 patent fails to teach or suggest that the first device is constructed from a first material and the second device is constructed from a second material wherein the first material is

softer than the second material as required by amended Claim 27.

The '420 patent fails to teach or to suggest a liquid within the generally U-shaped base wherein the liquid is released from the generally U-shaped base as required by Claim 35.

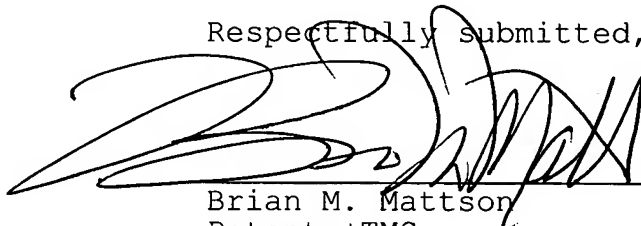
The '420 patent fails to teach or to suggest the dental appliance constructed from a first material and a second material wherein the first material is softer than the second material wherein a first portion of the dental appliance is constructed from the first material and contacts a first set of teeth and a second portion of the dental appliance is constructed from a second material and contacts a second set of teeth wherein the first set of teeth and the second set of teeth are different sets of teeth wherein the dental appliance has a front end and further wherein the first portion is located in a first position relative to the front end and the second portion is located in a second position relative to the front end and the first position and the second position are different positions as required by amended Claim 52.

Claims 2-7 depend from Claim 1; Claims 9-13 depend from Claim 8; Claims 15-20 depend from Claim 14; Claims 22-26 depend from Claim 21; Claims 28-34 depend from Claim 27; Claims 36-43 depend from Claim 35; Claims 45-51 depend from Claim 44; Claims 53-57 depend from Claim 52; Claims 59-62 depend from Claim 58; Claims 64-67 depend from Claim 63; Claims 69-73 depend from Claim 68; Claims 75-78 depend from Claim 74; Claims 80-84 depend from Claim 79; and

Claims 86 and 87 depend from Claim 85. These claims are further believed allowable over the references of record since each sets forth additional structural elements and novel steps of Applicant's invention.

In view of the foregoing remarks and arguments, Applicant respectfully submits that all of the claims in the application are in allowable form and that the application is in condition for allowance. If, however, any outstanding issues remain, Applicant urges the Patent Office to telephone Applicant's attorney so that the same may be resolved and the application expedited to issue. Applicant's request the Patent Office to indicate all claims as allowable and to pass the application to issue.

Respectfully submitted,

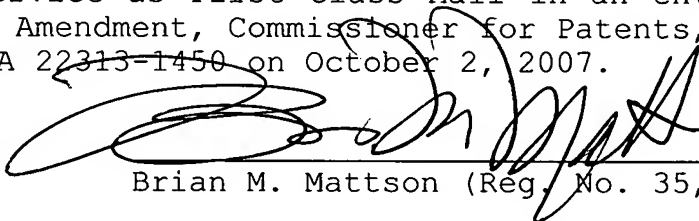


(Reg. No. 35,018)

Brian M. Mattson
Patents+TMS
A Professional Corporation
2849 W. Armitage Ave.
Chicago, Illinois 60647
Telephone: (773) 772-6009
Attorney for Applicant

CERTIFICATE OF MAILING

I hereby certify that this **Amendment, Transmittal (in duplicate)** and **Return Receipt Postcard** are being deposited with the United States Postal Service as First Class Mail in an envelope addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on October 2, 2007.



Brian M. Mattson (Reg. No. 35,018)